ANDREWS

#20
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1646

RAW SEQUENCE LISTING DATE: 11/29/2000
PATENT APPLICATION: US/09/394,020B TIME: 16:13:44

Input Set : A:\Huv3201.app
Output Set: N:\CRF3\11292000\I394020B.raw


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 3 <110> APPLICANT: PEPICELLI, CARMEN V.
 4       LEWIS, PAULA M.
 5       MCMAHON, ANDREW P.
 7 <120> TITLE OF INVENTION: REGULATION OF LUNG TISSUE BY HEDGEHOG-LIKE POLYPEPTIDES,
 8       AND FORMULATIONS AND USES RELATED THERETO
10 <130> FILE REFERENCE: HUV-032.01
12 <140> CURRENT APPLICATION NUMBER: 09/394,020B
13 <141> CURRENT FILING DATE: 1999-09-10
15 <150> PRIOR APPLICATION NUMBER: 60/099,952
16 <151> PRIOR FILING DATE: 1998-09-11
18 <160> NUMBER OF SEQ ID NOS: 30
20 <170> SOFTWARE: PatentIn Ver. 2.1
22 <210> SEQ ID NO: 1
23 <211> LENGTH: 1277
24 <212> TYPE: DNA
25 <213> ORGANISM: Gallus sp.
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28 <221> NAME/KEY: CDS
29 <222> LOCATION: (1)..(1275)
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34   1               5                  10                  15
36 tgc gct ctt tta gtc tcc tct ggg ctg act tgt gga cca ggc agg ggc   96
37 Cys Ala Leu Leu Val Ser Ser Gly Leu Thr Cys Gly Pro Gly Arg Gly
38              20                  25                  30
40 att gga aaa agg agg cac ccc aaa aag ctg acc ccg tta gcc tat aag   144
41 Ile Gly Lys Arg Arg His Pro Lys Lys Leu Thr Pro Leu Ala Tyr Lys
42          35                  40                  45
44 cag ttt att ccc aat gtg gca gag aag acc cta ggg gcc agt gga aga   192
45 Gln Phe Ile Pro Asn Val Ala Glu Lys Thr Leu Gly Ala Ser Gly Arg
46      50                  55                  60
48 tat gaa ggg aag atc aca aga aac tcc gag aga ttt aaa gaa cta acc   240
49 Tyr Glu Gly Lys Ile Thr Arg Asn Ser Glu Arg Phe Lys Glu Leu Thr
50  65                  70                  75                  80
52 cca aat tac aac cct gac att att ttt aag gat gaa gag aac acg gga   288
53 Pro Asn Tyr Asn Pro Asp Ile Ile Phe Lys Asp Glu Glu Asn Thr Gly
54                  85                  90                  95
56 gct gac aga ctg atg act cag cgc tgc aag gac aag ctg aat gcc ctg   336
57 Ala Asp Arg Leu Met Thr Gln Arg Cys Lys Asp Lys Leu Asn Ala Leu
58              100                 105                 110
60 gcg atc tcg gtg atg aac cag tgg ccc ggg gtg aag ctg cgg gtg acc   384
61 Ala Ile Ser Val Met Asn Gln Trp Pro Gly Val Lys Leu Arg Val Thr
62          115                 120                 125
64 gag ggc tgg gac gag gat ggc cat cac tcc gag gaa tcg ctg cac tac   432
65 Glu Gly Trp Asp Glu Asp Gly His His Ser Glu Glu Ser Leu His Tyr
66      130                 135                 140
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RAW SEQUENCE LISTING DATE: 11/29/2000
PATENT APPLICATION: US/09/394,020B TIME: 16:13:44

Input Set : A:\Huv3201.app
Output Set: N:\CRF3\11292000\I394020B.raw

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 69 Glu Gly Arg Ala Val Asp Ile Thr Thr Ser Asp Arg Asp Arg Ser Lys
 70 145                 150                 155                 160
 72 tac gga atg ctg gcc cgc ctc gcc gtc gag gcc ggc ttc gac tgg gtc   528
 73 Tyr Gly Met Leu Ala Arg Leu Ala Val Glu Ala Gly Phe Asp Trp Val
 74                 165                 170                 175
 76 tac tac gag tcc aag gcg cac atc cac tgc tcc gtc aaa gca gaa aac   576
 77 Tyr Tyr Glu Ser Lys Ala His Ile His Cys Ser Val Lys Ala Glu Asn
 78             180                 185                 190
 80 tca gtg gca gcg aaa tca gga ggc tgc ttc cct ggc tca gcc aca gtg   624
 81 Ser Val Ala Ala Lys Ser Gly Gly Cys Phe Pro Gly Ser Ala Thr Val
 82         195                 200                 205
 84 cac ctg gag cat gga ggc acc aag ctg gtg aag gac ctg agc cct ggg   672
 85 His Leu Glu His Gly Gly Thr Lys Leu Val Lys Asp Leu Ser Pro Gly
 86     210                 215                 220
 88 gac cgc gtg ctg gct gct gac gcg gac ggc cgg ctg ctc tac agt gac   720
 89 Asp Arg Val Leu Ala Ala Asp Ala Asp Gly Arg Leu Leu Tyr Ser Asp
 90 225                 230                 235                 240
 92 ttc ctc acc ttc ctc gac cgg atg gac agc tcc cga aag ctc ttc tac   768
 93 Phe Leu Thr Phe Leu Asp Arg Met Asp Ser Ser Arg Lys Leu Phe Tyr
 94                 245                 250                 255
 96 gtc atc gag acg cgg cag ccc cgg gcc cgg ctg cta ctg acg gcg gcc   816
 97 Val Ile Glu Thr Arg Gln Pro Arg Ala Arg Leu Leu Leu Thr Ala Ala
 98             260                 265                 270
100 cac ctg ctc ttt gtg gcc ccc cag cac aac cag tcg gag gcc aca ggg   864
101 His Leu Leu Phe Val Ala Pro Gln His Asn Gln Ser Glu Ala Thr Gly
102         275                 280                 285
104 tcc acc agt ggc cag gcg ctc ttc gcc agc aac gtg aag cct ggc caa   912
105 Ser Thr Ser Gly Gln Ala Leu Phe Ala Ser Asn Val Lys Pro Gly Gln
106     290                 295                 300
108 cgt gtc tat gtg ctg ggc gag ggc ggg cag cag ctg ctg ccg gcg tct   960
109 Arg Val Tyr Val Leu Gly Glu Gly Gly Gln Gln Leu Leu Pro Ala Ser
110 305                 310                 315                 320
112 gtc cac agc gtc tca ttg cgg gag gag gcg tcc gga gcc tac gcc cca  1008
113 Val His Ser Val Ser Leu Arg Glu Glu Ala Ser Gly Ala Tyr Ala Pro
114                 325                 330                 335
116 ctc acc gcc cag ggc acc atc ctc atc aac cgg gtg ttg gcc tcc tgc  1056
117 Leu Thr Ala Gln Gly Thr Ile Leu Ile Asn Arg Val Leu Ala Ser Cys
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120 tac gcc gtc atc gag gag cac agt tgg gcc cat tgg gcc ttc gca cca  1104
121 Tyr Ala Val Ile Glu Glu His Ser Trp Ala His Trp Ala Phe Ala Pro
122         355                 360                 365
124 ttc cgc ttg gct cag ggg ctg ctg gcc gcc ctc tgc cca gat ggg gcc  1152
125 Phe Arg Leu Ala Gln Gly Leu Leu Ala Ala Leu Cys Pro Asp Gly Ala
126     370                 375                 380
128 atc cct act gcc gcc acc acc acc act ggc atc cat tgg tac tca cgg  1200
129 Ile Pro Thr Ala Ala Thr Thr Thr Thr Gly Ile His Trp Tyr Ser Arg
130 385                 390                 395                 400
132 ctc ctc tac cgc atc ggc agc tgg gtg ctg gat ggt gac gcg ctg cat  1248
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RAW SEQUENCE LISTING DATE: 11/29/2000
PATENT APPLICATION: US/09/394,020B TIME: 16:13:44

Input Set : A:\Huv3201.app
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143 <213> ORGANISM: Murine sp.
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146 <221> NAME/KEY: CDS
147 <222> LOCATION: (1)..(1188)
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152   1               5                  10                  15
154 gca cta tct gcc cag agc tgc ggg ccg ggc cga gga ccg gtt ggc cgg   96
155 Ala Leu Ser Ala Gln Ser Cys Gly Pro Gly Arg Gly Pro Val Gly Arg
156             20                  25                  30
158 cgg cgt tat gtg cgc aag caa ctt gtg cct ctg cta tac aag cag ttt   144
159 Arg Arg Tyr Val Arg Lys Gln Leu Val Pro Leu Leu Tyr Lys Gln Phe
160         35                  40                  45
162 gtg ccc agt atg ccc gag cgg acc ctg ggc gcg agt ggg cca gcg gag   192
163 Val Pro Ser Met Pro Glu Arg Thr Leu Gly Ala Ser Gly Pro Ala Glu
164     50                  55                  60
166 ggg agg gta aca agg ggg tcg gag cgc ttc cgg gac ctc gta ccc aac   240
167 Gly Arg Val Thr Arg Gly Ser Glu Arg Phe Arg Asp Leu Val Pro Asn
168 65                  70                  75                  80
170 tac aac ccc gac ata atc ttc aag gat gag gag aac agc ggc gca gac   288
171 Tyr Asn Pro Asp Ile Ile Phe Lys Asp Glu Glu Asn Ser Gly Ala Asp
172                 85                  90                  95
174 cgc ctg atg aca gag cgt tgc aaa gag cgg gtg aac gct cta gcc atc   336
175 Arg Leu Met Thr Glu Arg Cys Lys Glu Arg Val Asn Ala Leu Ala Ile
176             100                 105                 110
178 gcg gtg atg aac atg tgg ccc gga gta cgc cta cgt gtg act gaa ggc   384
179 Ala Val Met Asn Met Trp Pro Gly Val Arg Leu Arg Val Thr Glu Gly
180         115                 120                 125
182 tgg gac gag gac ggc cac cac gca cag gat tca ctc cac tac gaa ggc   432
183 Trp Asp Glu Asp Gly His His Ala Gln Asp Ser Leu His Tyr Glu Gly
184     130                 135                 140
186 cgt gcc ttg gac atc acc acg tct gac cgt gac cgt aat aag tat ggt   480
187 Arg Ala Leu Asp Ile Thr Thr Ser Asp Arg Asp Arg Asn Lys Tyr Gly
188 145                 150                 155                 160
190 ttg ttg gcg cgc cta gct gtg gaa gcc gga ttc gac tgg gtc tac tac   528
191 Leu Leu Ala Arg Leu Ala Val Glu Ala Gly Phe Asp Trp Val Tyr Tyr
192             165                 170                 175
194 gag tcc cgc aac cac atc cac gta tcg gtc aaa gct gat aac tca ctg   576
195 Glu Ser Arg Asn His Ile His Val Ser Val Lys Ala Asp Asn Ser Leu
196             180                 185                 190
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RAW SEQUENCE LISTING DATE: 11/29/2000
PATENT APPLICATION: US/09/394,020B TIME: 16:13:44

Input Set : A:\Huv3201.app
Output Set: N:\CRF3\11292000\I394020B.raw

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198 gcg gtc cga gcc gga ggc tgc ttt ccg gga aat gcc acg gtg cgc ttg   624
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200         195                 200                 205
202 cgg agc ggc gaa cgg aag ggg ctg agg gaa cta cat cgt ggt gac tgg   672
203 Arg Ser Gly Glu Arg Lys Gly Leu Arg Glu Leu His Arg Gly Asp Trp
204     210                 215                 220
206 gta ctg gcc gct gat gca gcg ggc cga gtg gta ccc acg cca gtg ctg   720
207 Val Leu Ala Ala Asp Ala Ala Gly Arg Val Val Pro Thr Pro Val Leu
208 225                 230                 235                 240
210 ctc ttc ctg gac cgg gat ctg cag cgc cgc gcc tcg ttc gtg gct gtg   768
211 Leu Phe Leu Asp Arg Asp Leu Gln Arg Arg Ala Ser Phe Val Ala Val
212                 245                 250                 255
214 gag acc gag cgg cct ccg cgc aaa ctg ttg ctc aca ccc tgg cat ctg   816
215 Glu Thr Glu Arg Pro Pro Arg Lys Leu Leu Leu Thr Pro Trp His Leu
216             260                 265                 270
218 gtg ttc gct gct cgc ggg cca gcg cct gct cca ggt gac ttt gca ccg   864
219 Val Phe Ala Ala Arg Gly Pro Ala Pro Ala Pro Gly Asp Phe Ala Pro
220         275                 280                 285
222 gtg ttc gcg cgc cgc tta cgt gct ggc gac tcg gtg ctg gct ccc ggc   912
223 Val Phe Ala Arg Arg Leu Arg Ala Gly Asp Ser Val Leu Ala Pro Gly
224     290                 295                 300
226 ggg gac gcg ctc cag ccg gcg cgc gta gcc cgc gtg gcg cgc gag gaa   960
227 Gly Asp Ala Leu Gln Pro Ala Arg Val Ala Arg Val Ala Arg Glu Glu
228 305                 310                 315                 320
230 gcc gtg ggc gtg ttc gca ccg ctc act gcg cac ggg acg ctg ctg gtc  1008
231 Ala Val Gly Val Phe Ala Pro Leu Thr Ala His Gly Thr Leu Leu Val
232                 325                 330                 335
234 aac gac gtc ctc gcc tcc tgc tac gcg gtt cta gag agt cac cag tgg  1056
235 Asn Asp Val Leu Ala Ser Cys Tyr Ala Val Leu Glu Ser His Gln Trp
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238 gcc cac cgc gcc ttc gcc cct ttg cgg ctg ctg cac gcg ctc ggg gct  1104
239 Ala His Arg Ala Phe Ala Pro Leu Arg Leu Leu His Ala Leu Gly Ala
240         355                 360                 365
242 ctg ctc cct ggg ggt gca gtc cag ccg act ggc atg cat tgg tac tct  1152
243 Leu Leu Pro Gly Gly Ala Val Gln Pro Thr Gly Met His Trp Tyr Ser
244     370                 375                 380
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254 <213> ORGANISM: Murine sp.
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RAW SEQUENCE LISTING DATE: 11/29/2000
PATENT APPLICATION: US/09/394,020B TIME: 16:13:44

Input Set : A:\Huv3201.app
Output Set: N:\CRF3\11292000\I394020B.raw

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265 ctg ctg ctg ctt ctg gtg ccg gcg gcg cgg ggc tgc ggg ccg ggc cgg   96
266 Leu Leu Leu Leu Leu Val Pro Ala Ala Arg Gly Cys Gly Pro Gly Arg
267              20                  25                  30
269 gtg gtg qqc agc cgc cgg agg ccg cct cgc aag ctc gtg cct ctt gcc   144
270 Val Val Gly Ser Arg Arg Arg Pro Pro Arg Lys Leu Val Pro Leu Ala
271          35                  40                  45
273 tac aag cag ttc agc ccc aac gtg ccg gag aag acc ctg qgc gcc agc   192
274 Tyr Lys Gln Phe Ser Pro Asn Val Pro Glu Lys Thr Leu Gly Ala Ser
275      50                  55                  60
277 ggg cgc tac gaa ggc aag atc gcg cgc agc tct gag cgc ttc aaa gag   240
278 Gly Arg Tyr Glu Gly Lys Ile Ala Arg Ser Ser Glu Arg Phe Lys Glu
279  65                  70                  75                  80
281 ctc acc ccc aac tac aat ccc gac atc atc ttc aag gac gag gag aac   288
282 Leu Thr Pro Asn Tyr Asn Pro Asp Ile Ile Phe Lys Asp Glu Glu Asn
283                  85                  90                  95
285 acg ggt gcc gac cgc ctc atg acc cag cgc tgc aag gac cgt ctg aac   336
286 Thr Gly Ala Asp Arg Leu Met Thr Gln Arg Cys Lys Asp Arg Leu Asn
287              100                 105                 110
289 tca ctg gcc atc tct gtc atg aac cag tgg cct ggt gtg aaa ctg cgg   384
290 Ser Leu Ala Ile Ser Val Met Asn Gln Trp Pro Gly Val Lys Leu Arg
291          115                 120                 125
293 gtg acc gaa ggc cgg gat gaa gat ggc cat cac tca gag gag tct tta   432
294 Val Thr Glu Gly Arg Asp Glu Asp Gly His His Ser Glu Glu Ser Leu
295      130                 135                 140
297 cac tat gag ggc cgc gcg gtg gat atc acc acc tca gac cgt gac cga   480
298 His Tyr Glu Gly Arg Ala Val Asp Ile Thr Thr Ser Asp Arg Asp Arg
299 145                 150                 155                 160
301 aat aag tat gga ctg ctg gcg cgc tta gca gtg gag gcc ggc ttc gac   528
302 Asn Lys Tyr Gly Leu Leu Ala Arg Leu Ala Val Glu Ala Gly Phe Asp
303                 165                 170                 175
305 tgg gtg tat tac gag tcc aag gcc cac gtg cat tgc tct gtc aag tct   576
306 Trp Val Tyr Tyr Glu Ser Lys Ala His Val His Cys Ser Val Lys Ser
307              180                 185                 190
309 gag cat tcg gcc gct gcc aag aca ggt ggc tgc ttt cct gcc gga gcc   624
310 Glu His Ser Ala Ala Ala Lys Thr Gly Gly Cys Phe Pro Ala Gly Ala
311          195                 200                 205
313 cag gtg cgc cta gag aac ggg gag cgt gtg gcc ctg tca gct gta aag   672
314 Gln Val Arg Leu Glu Asn Gly Glu Arg Val Ala Leu Ser Ala Val Lys
315      210                 215                 220
317 cca gga gac cgg gtg ctg gcc atg ggg gag gat ggg acc ccc acc ttc   720
318 Pro Gly Asp Arg Val Leu Ala Met Gly Glu Asp Gly Thr Pro Thr Phe
319 225                 230                 235                 240
321 agt gat gtg ctt att ttc ctg gac cgc gag cca aac cgg ctg aga gct   768
322 Ser Asp Val Leu Ile Phe Leu Asp Arg Glu Pro Asn Arg Leu Arg Ala
323                 245                 250                 255
325 ttc cag gtc atc gag act cag gat cct ccg cgt cgg ctg gcg ctc acg   816
326 Phe Gln Val Ile Glu Thr Gln Asp Pro Pro Arg Arg Leu Ala Leu Thr
327              260                 265                 270
```

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FYI:

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY DATE: 11/29/2000
PATENT APPLICATION: US/09/394,020B TIME: 16:13:45

Input Set : A:\Huv3201.app
Output Set: N:\CRF3\11292000\I394020B.raw

L:734 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:735 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:1628 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:15
L:1628 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:15
L:1628 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:15
L:2195 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:21
L:2258 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:2264 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:2273 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
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L:2282 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:2291 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:2294 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:2297 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:2539 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:2542 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:2545 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:2548 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:2551 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:2554 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
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L:2563 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:2566 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
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